ADDITIONS TO THE VASCULAR FLORA OF OKLAHOMA

The vascular flora of most of the major areas of Oklahoma has been fairly well collected. There are, however, many areas within the boundary of the state that have not been thoroughly investigated. The species discussed in this paper come from two of these areas. Until recently, Bryan Co. represented an essentially uninvestigated area. Prior to 1960, only a few specimens of vascular plants had been collected from this county of approximately 900 sq. miles. Specimens from the county have added a few new taxa to the flora of the state, and have added range extensions for many eastern and a few western species, (Taylor & Taylor, 1964a, 1964b, and in press). Many unique habitats are found in Bryan County. Hillside, seepy, bog-like habitats are formed along the flanks of small valleys cut in the Woodbine Sandstone (Cretaceous in age) where porous overlying strata have been truncated. Some of these habitats are only an acre or so in size, while others are several acres in extent (Taylor & Laughlin, 1963). Another unique habitat in this area is a strip of sand dunes lying along the north side of the Red River. The more recently formed dunes contain a sparse, xeric type of vegetation composed partially of western and southwestern species. The older dunes are stabilized and a type of bottomland forest invades them. Some of these forested areas have been cleared and cultivated, then subsequently allowed to go fallow. Some western and southwestern species also occur in these old fields (Taylor & Taylor, in press). Another area in Oklahoma that as yet has not been thoroughly studied is a 48 sq. mi. area (triangular in outline with the towns of Mill Creek, Mannsville, and Ravia at the apices) lying along the eastern side of the Arbuckle Mountains. It is an area underlain mainly by limestone strata (Tishomingo granite outcrops along the eastern side) and dissected by a number of spring-fed streams that flow year round — even in very dry years. This area, and other parts of the Arbuckle Mountains lying adjacent to it on the west, contain several eastern species. Hall (1952) and Hall and Carr (1964) discussed

the affinities of some of this eastern element. Taylor and Taylor (in press) list a few additional eastern species for this area.

The species listed below are thought to be newly reported for the state. All specimens cited were collected by John and Constance Taylor and are deposited in the Bebb Herbarium, University of Oklahoma, Norman.

We wish to express our sincere gratitude to Dr. G. J. Goodman for his advice and for placing the facilities of the Bebb Herbarium at our disposal.

Dulichium arundinaceum (L.) Britt. was collected in Bryan County (No. 2332) from 4.5 mi. NE of Bennington where it was very abundant in a hillside seep. The Three-Way Sedge is a species of marshes and stream margins ranging from California N to British Columbia, E to Newfoundland and S to Florida and Texas.

Rhynchospora capillacea Torr. This almost hair-like, tussock forming member of the sedge family was collected (No. 2461) in the Arbuckle Mt. area of Johnston Co., 4 mi. S of the town of Mill Creek from a damp, calcareous meadow near Bee Branch. It would seem that this species has not previously been known further south and west than southern Missouri, where Steyermark (1963) considers it a relict. Quite possibly its occurrence in the Arbuckle Mts. of Oklahoma may be explained in the same manner.

Tigridia purpurea (Herb.) Shinners. This combination follows Shinners (1964). We have this very beautiful member of the Iridaceae (formerly known under *Eustylis*) from two nearby locations in eastern Bryan County. No. 2220 was collected from a damp low lying area in an oak-pine forest, 5 mi. E and 2 mi. N of Bennington. Other specimens (No. 2269 and duplicates) were collected approximately 1 mi. S of this location from an upland forest that fringes a hillside seep. Apparently the rather rare Pinewoods Lily has previously been known only from Arkansas, Louisiana, and Texas.

Linum imbricatum (Raf.) Shinners has been collected from a sandy old field 3.5 mi. SW of Mead in Bryan County. This species has previously been known from as near as

Cook and Grayson Cos. across the Red River in Texas (Rogers, 1964), and is known only from east central Texas.

R. JOHN AND CONSTANCE TAYLOR
SOUTHEASTERN STATE COLLEGE, DURANT, OKLAHOMA

LITERATURE CITED

HALL, MARION T. 1952. Variation and hybridization in *Juniperus*. Annals of the Mo. Bot. Gard. **39**:1-64.

———————, and CLAUDIA J. CARR. 1964. Differential selection in Juniper populations from the Baum Limestone and Trinity Sand of southern Oklahoma. Butler Univ. Bot. Stud. **14**:21-40.

ROGERS, C. M. 1964. Yellow-flowered *Linum* (Linaceae) in Texas. SIDA Contr. to Botany **1**(6):328-336.

SHINNERS, LLOYD H. 1964. *Tigridia purpurea* (Herb.) Shinners comb. nov. (Iridaceae). SIDA Cont. to Botany **1**(5):295.

STEYERMARK, J. A. 1963. Flora of Missouri. Iowa State Univ. Press, Ames. p. 306.

TAYLOR, R. JOHN and HAROLD LAUGHLIN. 1964. Additions to the Herpeteofauna of Bryan County, Oklahoma. Southwestern Naturalist **9**:41-43.

TAYLOR, CONSTANCE and R. JOHN. 1964a. Comments on the Flora of Bryan Co., Okla. Proc. Okla. Acad. Sci. **45**:6-10.

———————. 1964b. *Podophyllum peltatum* f. *Deamii* from Bryan Co., Okla. Rhodora **66**:766.

TAYLOR, R. JOHN and CONSTANCE. 1965 (in press). Comments on the vascular flora of Oklahoma. Proc. Okla. Acad. Sci. 46.